An Overview of Posttraumatic Stress Disorder in African Americans

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While several studies have found high rates of trauma exposure there is limited information on posttraumatic stress disorder (PTSD) and its relationship to depression in the African American population. The prevalence and/or expression of psychiatric disorders can differ between racial/ethnic groups. The authors review literature addressing trauma exposure, prevalence, and expression of PTSD in the African American population. Risk factors that may be of specific significance to the development of PTSD in African Americans are also reviewed. Additionally, treatment issues and potential directions for future research of PTSD in the African American population are discussed. © 2006 Wiley Periodicals, Inc. J Clin Psychol 62: 801–813, 2006.

Keywords: posttraumatic stress disorder; African Americans; prevalence; trauma exposure

Introduction

Special concerns regarding African Americans that have been identified in the public health literature relate to medical (e.g., high rates of cardiovascular and metabolic illnesses, and HIV) and mental health problems. Among mental health issues, the U.S. Surgeon General has specifically identified high rates of somatization and phobias,

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JOURNAL OF CLINICAL PSYCHOLOGY, Vol. 62(7), 801–813 (2006)

Published online in Wiley InterScience (www.interscience.wiley.com). DOI: 10.1002/jclp.20280

under-recognition of depression, and increased suicides among African American youth (Robins et al., 1984; Schneider, Greenberg, & Daiwoo, 1992; U.S. Department of Health and Human Service, 2001). Posttraumatic stress disorder (PTSD) is a prevalent condition associated with high morbidity in the general population (lifetime prevalence 7.8 to 12.3%; American Psychiatric Association [APA], 2000; Breslau, Davis, Andreski, & Peterson, 1991; Kessler et al., 1995). Despite what appear to be high rates of trauma exposure among African Americans, information on PTSD in this population is limited. Existing literature is suggestive of high rates of trauma exposure in economically disadvantaged African Americans living in urban environments (Breslau et al., 1991; Breslau et al., 1998; Fitzpatrick & Boldizar, 1993; Selner-O'Hagan et al., 1998; Shakoor & Chalmers, 1989). There is uncertainty whether the relative prevalence and expression of certain psychiatric disorders is the same across ethnic/racial groups (Breslau et al., 1998; Kessler et al., 1995; Kulka et al., 1990; Norris, 1992). Reports are varied as to the prevalence of PTSD in African Americans. Some investigators have reported higher rates of PTSD whereas others have found lower rates in African Americans compared with Whites (Breslau et al., 1998; Kessler et al., 1995; Kulka et al., 1990; Norris, 1992). Misdiagnosis and underdiagnosis of psychiatric disorders is a common problem in African Americans that likely applies to PTSD (Lawson, 2003) although the extent to which PTSD is misdiagnosed in African Americans is not known.

Depression is also a common outcome of trauma and is often comorbid with PTSD. Kessler et al. (2003) found that 48% of men and 49% of women with PTSD also had a major depressive episode (MDE). Several large epidemiological studies suggest lower rates of depression for African Americans compared with other groups (Jonas, Brody, Roper, & William, 2003; Kessler et al., 2003; Regier et al., 1993). Reasons for these differences have been postulated to include underreporting and detection despite the use of systematic methods of assessment, variation in the expression of mood disorders in African Americans, and/or true reduced prevalence. The lifetime risk of any anxiety and/or mood disorder(s) is higher in women than in men (Kessler et al., 2005). Given the high comorbidity rates for PTSD and depression, African American women who are trauma exposed and have PTSD would be at high risk for also having depression.

The purpose of this article is to review the literature addressing trauma exposure, risks of PTSD among those exposed to different traumas and the expression of PTSD and related psychological problems (e.g., depression) in African Americans. Although issues regarding PTSD in children and adolescents are important, the literature is limited and the focus here will be on adults. In addition, issues of risk factors and treatment as they pertain to African Americans are discussed along with suggested directions for future research.

Trauma Exposure in the African American Population

Two studies that have compared exposure to multiple categories of trauma in minority populations are Breslau et al. (1998) and Norris (1992). In a study of Health Maintenance Organization (HMO) participants from urban Detroit, Breslau et al. (1998) found increased rates of assaultive violence in non-Whites compared with Whites (55% vs. 32%) as well as those learning of others experiencing trauma (69% vs. 61%). African American participants comprised over 80% of this non-White sample (N. Breslau, personal communication, February 28, 2005). Rates for injury and shock and unexpected death were not different for these two groups. However, Norris (1992) evaluated African American and White victims of Hurricane Hugo residing in Charleston and Greenville, South Carolina, Charlotte, North Carolina, and Savannah, Georgia for prior lifetime trauma exposure. In

contrast to the Breslau et al. (1998) study, Whites were more likely to have experienced lifetime trauma exposure including physical assault, robbery, or tragic death than African Americans (Norris, 1992). The differences in these two studies may be related to the geographical environment of the respective studies (i.e., more rural setting of the Norris study) (Table 1).

Exposure to Violence

In the year 2000, African Americans were 6 times more likely than Whites to be murdered (Fox & Zawitz, 2002). Rates for other crime victimization were higher as well. In the 2002 National Crime Victimization Survey (NCVS), the overall rates for exposure to crimes of violence were 27.9 per 1,000 persons age 12 and over for African Americans, and 22.8 for Whites (U.S. Department of Justice, 2003). These crimes of violence included sexual assault, robbery, and physical assault. According to the NCVS, rates for experiencing aggravated physical assault were 6.7 per 1,000 persons age 12 and over for African Americans and 4.1 for Whites. The rate of sexual assault including rape was particularly disproportionate (2.5 per 1,000 for African Americans, 0.5 per 1,000 for Whites). Rates for intimate or partner abuse were similar.

Rates of violence exposure (experienced and/or witnessed) range between 25 to 97% among African American youth residing in urban communities (Fitzpatrick & Boldizar, 1993; McGee et al., 2001; Selner-O'Hagan et al., 1998; Shakoor & Chalmers, 1989). Higher rates of witnessed violence have been reported to occur in African American youth as compared to Whites. In a validation study of a violence exposure instrument, African Americans were more likely than Whites to report seeing somebody shot (47% vs. 13%; Selner-O'Hagan et al., 1998). In general, physical assault is more likely to occur in males, especially adolescent males (Abram et al., 2004; Cheng et al., 2003; Kessler et al., 1995).

In summary, violent traumas such as homicide, physical assault, and rape are perpetuated more frequently against African Americans. However, as evidenced by the discrepant findings by Breslau et al. (1998) versus Norris cited at the beginning of the section, this appears secondary to being more likely to reside in poverty-level urban communities.

Risk of Posttraumatic Stress Disorder for African Americans

Is the risk for the development of PTSD for African Americans different from other groups when exposed to similar trauma? The major epidemiologic studies of PTSD reported lifetime prevalence rates ranging between 7.8 to 12.3 percent (APA, 2000; Breslau et al., 1991; Kessler et al., 1995; Resnick et al., 1993) (See Table 2). Rates within ethnic racial groups including African Americans were not reported in these studies. However, Breslau et al. (1998) subsequently did report that the rate of PTSD in non-Whites was twice as high as for Whites in the sample (14% non-Whites vs. 7% Whites). However, these differences appear to have been a function of sociodemographic factors including different rates of trauma exposure (see previous section). Because of the limited information on PTSD and African Americans in the general population, we will review findings within studies of specific trauma categories.

Sexual and Partner Abuse

Vogel and Marshall (2001) found no differences in the rates of crime-related PTSD (CR-PTSD) among victims of partner abuse between African American, White, and Mexican

Table 1
Trauma Exposure in the African American Population

Sample/*n*	Rates of trauma exposure	Comments	Reference
African American Chicago middle and high school youth, *1,035*	75% Male (M) 70% Female (F)	Witnessed violence	Shakoor & Chalmers (1989)
Adults, *1,007*	42% African American 39% White	Multiple categories of trauma	Breslau et al. (1991)
Hurricane Hugo victims, *1,000*	77% White 61% African American	Lifetime exposure to any traumatic event	Norris (1992)
Low-income African American youth, *221*	>70%	Community violence, experienced and witnessed, PTSD 27%	Fitzpatrick & Boldizar (1993)
Pregnant parenting African American females, *177*	22%	Sexual victimization	Rhodes et al. (1993)
Youth from Chicago neighborhoods, *80*	32% African American 3% White (Witnessing shooting)	Past-year total violence exposure significantly higher for African Americans whereas lifetime exposure was not	Selner-O'Hagan et al. (1998)
African American Virginia middle & high school students, *306*	97%	Witnessed or experienced violence	McGee et al. (2001)
Youth in detention, *898*	94% M/86% F African American 90% M/77% F White 91% M/82% F Hispanic	No differences in race; more men exposed to trauma than women	Abram et al. (2004)

Journal of Clinical Psychology DOI 10.1002/jclp

Table 2
Prevalence of Posttraumatic Stress Disorder (PTSD) in African Americans and Comparison Groups

Sample/*n*	Prevalence of PTSD	Comment	Reference
Vietnam Theater Veterans, *1,600*	28% Hispanic 21% African American 14% White	Elevated rates in African Americans not significant when controlling for combat exposure	Kulka et al. (1990)
Hurricane Hugo victims, *1,000*	7.6% White 7.2% African American	Lifetime exposure to any traumatic event	Norris (1992)
Homeless women, *300*	34%	84% African American	Smith et al. (1993)
Inpatient substance users, *95*	50%	Crime related trauma	Dansky et al. (1996)
Adults in Detroit metropolitan area, *2,181*	14% Non-White 7% White	80% African American from the Non-white sample	Breslau et al. (1998)

American women after controlling for socioeconomic status (SES). About half the sample exceeded the cut-off rate for high CR-PTSD scores and the rates for African American, White, and Mexican American women were similar. Wyatt (1992) assessed the effects of abusive sexual experiences on sexual and psychological functioning in African Americans and Whites using a detailed structured interview. She found that African Americans and Whites had similar "long-term psychological effects" (p. 84). Chronic psychological effects including negative thinking, depression, and fears were found in both African Americans and Whites (60% and 62%, respectively). African American women who were parents and/or pregnant as adolescents or young adults and experienced sexual victimization earlier in life were more likely than those not victimized to have negative psychological and social consequences including PTSD (Rhodes, Ebert, & Meyers, 1993). Even after controlling for several SES factors and race, Briere and Elliott found that subjects with childhood sexual abuse were more likely to have increased Trauma Severity Inventory scores. Overall, studies indicate that sexual abuse survivors are at increased risk for psychopathology (Briere & Elliott, 2003; Browne & Finkelhor, 1986).

Military Combat

Findings from studies involving combat veterans have varied with regard to the relative prevalence of PTSD among African Americans. Several studies including the National Vietnam Veterans Readjustment Study (NVVRS) found higher rates of PTSD in African American (20–47%) as compared to White veterans (13–30%; Green, Grace, Lindy, & Leonard, 1990; Kulka et al., 1990; Penk et al., 1989). However, in the Green et al. and Kulka et al. studies, the differences for African Americans were no longer significant when the effects of combat exposure and SES were controlled.

Similarly in sexual trauma victims, rates of psychopathology are not higher in combat-exposed veterans when socioeconomic status is comparable between African American and White groups. However, one cannot conclude that there are not other ethnic differences. Specifically, Loo (2003) cogently argues that when a clinician only assesses for trauma exposure (i.e., combat exposure), he or she may miss other essential elements of a patient's problem and thus miss the diagnosis of PTSD. Important factors include race-related stressors that include intrapsychic, social, and economic effects of racial prejudice or stigmatization (Carter, 1982; Jones et al., 2000; Loo, 2003). In fact, Loo et al. (2001)

has found that if a clinician fails to assess for race-related stressors that as much as 20% of a patient's PTSD symptoms will not be referred to the appropriate diagnosis.

Expression of Posttraumatic Stress Disorder in African Americans

Posttraumatic Stress Disorder Symptoms in Adults

Symptoms of psychiatric disorders may be expressed differently between racial groups. Lawson (2000) suggested that PTSD symptom expression in African Americans may be different and result in misdiagnosis (including schizophrenia) and greater likelihood of treatment with antipsychotic medication. Among the studies of male combat veterans, Laufer, Brett, and Gallops (1985) found that in African Americans negative intrusive imagery was more often related to participating in violent abuse whereas in Whites it was more often related to witnessing combat or violent abuse. African American Vietnam theater veterans had higher levels of dissociative features of PTSD compared to Whites (Zatzick et al., 1994). However, when war stress exposure was controlled for, the significance of this difference was not sustained. Frueh, Smith, and Libet (1996) noted differences between racial groups among combat veterans seeking treatment at a Veterans Administration (VA) outpatient treatment program for PTSD. African Americans had higher scores for dissociation, disturbed thinking, and paranoia. However, the same group did not replicate these findings in a second study (Frueh, Gold, de Arellano, & Brady, 1997). These different results were thought to be due to over-reporting and mistrust of institutions in the initial study group, in contrast to the second study when there was more stability and trust of staff. In a study of inpatients, Trent et al. (2000) found no significant differences in PTSD symptoms between African American and White Vietnam Veterans. Minority Persian Gulf Veterans exposed to war zone stress had higher scores on depression and PTSD scales (Sutker, Davis, Uddo, & Ditta, 1995); however, all minority groups were combined together and compared to White troops due to inadequate number of African Americans, Hispanic, Asian, and Native Americans for separate analyses. Similarly, David, Kutcher, Jackson, and Mellman (1999) found that in combat veterans admitted to a PTSD rehabilitation unit, minority patients (African Americans and Hispanics) were more likely to experience psychotic symptoms that were comorbid with depression. Likewise, the minority sample was small and African Americans and Hispanics were grouped together for analyses. Thus, on balance it seems that differences in PTSD symptom expression between African American and White combat veterans who seek treatment may be accounted for by sociodemographic and severity factors and are not necessarily intrinsic.

Substance Use Comorbidity

Veteran patients who have been exposed to trauma are at risk for psychiatric morbidity including depression, other anxiety, and substance use disorders with and without PTSD symptoms (White & Faustman, 1989; Wilcox, Briones & Suess, 1991). High rates of substance use with trauma exposure have been found in multiple ethnic groups (Marx & Sloan, 2003; Montoya, Covarrubias, Patek, & Graves, 2003; Roberts, Wechsberg, Zule, & Burroughs, 2003; Smith, North, & Spitznagel, 1993; Boyd, 1993; Carter, 1982; Wilcox et al., 1991). In one study, the rates of substance abuse disorders increased in African American women as they got older while rates of PTSD decreased (Seng, 2003). Some theorize that trauma survivors may "self-medicate" symptoms of emotional distress and PTSD (Marx & Sloan). The risk of alcoholism in African Americans is higher in combat

veterans and homeless women who may have comorbid PTSD (Carter, 1982; Smith et al., 1993). Regardless of race, high rates of PTSD are found in cocaine abusers (Dansky et al., 1996).

Overall, these studies of symptom expression and comorbidity suggest that when increased psychopathology is observed in African Americans it is likely due to greater combat exposure and race-related stressors and psychosocial and economic factors. Symptom recognition is vital to the accurate diagnosis of PTSD in African American patients including veterans (Allen, 1986; Lawson, 2000). African American men presenting in a distrustful and hostile manner may lead a clinician to not recognize PTSD. Even though PTSD differences become statistically nonsignificant when controlling for level of exposure and socioeconomic factors, pre- and postwar factors that may lead to increased symptoms are important to consider in research and in clinical practice. Some authors have noted that other possible contributors to PTSD were racial and social problems during Vietnam wars; conflict about brutality against the Vietnamese, and limited financial opportunities following the war (Allen, 1986; Parson, 1981). Furthermore, African American trauma survivors are at risk for substance abuse or dependence if left untreated.

Risk Factors for Posttraumatic Stress Disorder Development

We were unable to find reports that address whether risk factors that have been identified in large epidemiological studies of PTSD differentially influence the risk of PTSD in African Americans. Risk factors identified in these studies include preexisting psychiatric disorders, female gender, degree of exposure, family history of psychiatric disorders, and childhood trauma (Breslau, 2002; Breslau et al., 1991; Kessler et al., 1995; Norris, 1992; Vernberg, La Greca, Silverman, & Prinstein, 1996). In reference to gender, the risk for the development of PTSD in African American women exposed to similar traumas does not appear different from that in White women especially when controlling for SES (Smith et al., 1993; Vogel & Marshall, 2001).

Additional risk factors that may have a specific role with African Americans include exposure to violence, race-related stressors, lack of support, and decreased utilization of mental health services. Race-related stressors that have been identified as contributing to PTSD in African Americans include racial prejudice, stigmatization, and/or bicultural identification (Loo, 2003). African Americans are known to have decreased utilization of mental health services in general (Kaiser, 2000). When PTSD is present this may be exacerbated by avoidance symptoms. On the other hand, protective factors may also be associated with African Americans such as family support among those who have a stronger ethnic identity. Regardless of race, higher rates of PTSD occur in individuals who have lower SES, and/or are poor academic achievers, unemployed, and/or homeless. African Americans are more likely to be in these high-risk categories.

Treatment for Posttraumatic Stress Disorder

The medication treatment trials for PTSD usually have too limited numbers of African Americans to make statistical inference on the efficacy in this population. Clinical reports advocate group psychotherapy as helpful for African Americans with PTSD but studies in this area are sparse (Dyson, 1990; Jones et al., 2000). Cognitive–behavioral therapy (CBT) was evaluated by Zoellner, Feeny, Fitzgibbons, and Foa (1999) in African American and White women. Both groups improved with CBT and had similar dropout rates. In another study comparing two treatment interventions, improvement was found in girls who were sexually abused (75% of whom were African American, aged 8–13) especially

those receiving treatment that was culturally sensitive (Celano, Hazzard, Webb, & McCall, 1996).

Other important factors to consider include improving retention in treatment and increasing research participation by African Americans. Rosenheck and Fontana (1995) found longer time in treatment with racial pairing of clinician and veteran. Likewise, Jones et al. (2000) found that African American veterans benefited when an African American therapist facilitated the group process as it provided an avenue of open communication around issues pertaining to racial discrimination. Mistrust of research and physicians has been an impediment to successful recruitment of African Americans into treatment research. Corbie-Smith, Thomas, and St. George (2002), using a 7-item index measure, found African Americans had a higher mean distrust index score than Whites even with controlling for social class. Barriers to receiving mental health treatment for African Americans can also include cultural misunderstandings, mistrust of physicians, misdiagnoses of illnesses, and financial constraints (Boulware et al., 2003; Johnson et al., 2004; Snowden & Cheung, 1990; Sussman, Robins, & Earls, 1987).

Conclusion

Elevated prevalence rates for PTSD for African Americans have been found among veterans with high combat exposure, women with low income and/or homelessness, and adolescents living in high crime, drug-infested areas. However, when controlling for SES, differences in PTSD rates become nonsignificant. Within-African-American-group differences appear to exist related to region (southern vs. northern US; urban vs. rural) or economic status (wealthy vs. poor) and the diversity of the African diaspora including immigrants from the Caribbean, South America, and Africa (Allen, 1996). The subpopulation of African Americans residing in high-stress urban areas appear to be at higher risk for PTSD.

Areas for future research that would be informative would include studies on epidemiology, assessment, treatment, genetic vulnerability, PTSD over the lifespan, and resilience.

Epidemiology

Insufficient sample size to assess prevalence in African Americans has been a limiting factor in epidemiological studies. Therefore, definitive estimates in more fully representative African American populations remain to be determined. A large epidemiological study on the scope of the National Comorbidity Study (Kessler et al., 1995) with sampling and analyses to determine trauma exposure and PTSD in African Americans would help to close this gap.

Assessment

Areas to explore include development of culturally sensitive diagnostic assessments and evaluations of race-related stressors as they pertain to African Americans. Stress related to trauma (whether veteran or civilian) from racism and stressors from poor living conditions likely compound the expression of psychopathology in African Americans (Penk & Allen, 1991). Race-related stressor measurements would also include measures of prejudice and discrimination (Loo et al., 2001).

Treatment

Randomized controlled trials that evaluate the efficacy of medication treatment of PTSD within African Americans are needed. Although initial findings are encouraging, further information on the response of African Americans to various types of psychotherapy would be of value. Studies of prevention among victims of high-risk trauma are a priority for African Americans and the general population.

Genetics

Future knowledge of molecular mechanisms and their variation within racial/ethnic groups might provide improved understanding of vulnerability and resilience and more effective targeting of pharmacological interventions.

Posttraumatic Stress Disorder Over the Lifespan

Manifestations of PTSD appear to be a function of age and development (Bell & Jenkins, 1991). Preschoolers manifest passivity and regression; school-aged children are more likely to exhibit aggression, somatization, and intellectual compromise. Manifestations in adolescents can include aggression, substance use disorders, delinquency, and sexual hyperactivity. Women may present with somatic symptoms (chronic fatigue, irritable bowel syndrome, etc.) rather than PTSD (Seng, 2003). Although, a few studies have evaluated violence-exposed African American youth and disaster-exposed youth, none have assessed African Americans prospectively across their lifespan (childhood through old age). Additionally, elderly African Americans represent a neglected important subgroup to assess.

Resilience

The evaluation of African Americans enduring severe trauma without significant pathology is important to trauma research. Resilience involves the ability to thrive in the presence of adversity or hardship. Factors that confer resilience are thought to include intellectual capacity and the ability to be in touch with one's affect and resourcefulness or self-efficacy (Connor & Davidson, 2003). Resilience is thought to also be enhanced by having and engaging one's support network, having a sense of commitment, altruism, adaptability to change, optimism and faith or belief in a benevolent intervention (Connor & Davidson, 2003; Bell, 2001). The exposure of African American youth to chronic community violence together with decreased access to health care is likely to decrease resiliency. For example, children having decreased access to health screening including lead checks would be at increased risk for cerebral damage leading to decreased intellectual capacity (Bell, 2001). Furthermore, African Americans have more limited access to mental health interventions that might support healthy adaptation.

Research is needed to verify the impression that African American women who are victims of multiple traumas have high resilience despite the hardships they have endured. Prospective studies of African American victims of multiple traumas may be helpful in determining what factors lead to resilience in this subpopulation (Vogel & Marshall, 2001). Preliminary observations from Boston University Resiliency Project suggested that the style of family upbringing seen in urban, African American families might contribute to resiliency in African American women (Grossman, Cook, Kepkep, & Koenen, 1999). The two African American women in their sample appeared to have learned from

their mothers and other caretakers, the importance of protecting and defending themselves in contrast to the White women in their study.

Additionally, early assessment and intervention of African American trauma victims could mitigate or reduce the treatment needs and ultimately reduce the disability related to PTSD. Overall, such research could lead to the reduction and severity of immediate and lifetime consequences of severe traumas. Expanding the body of knowledge in these areas could greatly improve treatment services needed for African American trauma survivors.

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